ANNUAL REPORT

of the

DEPARTMENT *of* SURGERY

1949

THE NEW YORK HOSPITAL-CORNELL MEDICAL CENTER
525 East 68th Street, New York 21, N. Y.

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DEPARTMENT OF SURGERY

The New York Hospital—Cornell Medical Center

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by

FRANK GLENN, M.D.

To the President of the Board of Governors of The New York Hospital and the President of the Board of Trustees of Cornell University:

INTRODUCTION

The achievements of the Department of Surgery during 1949 have been commendable. The conditions that resulted from the war which have been somewhat of a handicap are improving. The pace of our progress has quickened and the capacity of the Department to do more and better work is increasing. Surgical care of an exceedingly high standard has been given to a greater number of patients than ever before in the 178 years that the Hospital has been in existence. The excellence of this care has been reflectd in the satisfaction and appreciation shown by the patients and their relatives, and in the establishment of a new low record in the mortality rate and our incidence of postoperative complications. Our surgery has increased not only in quality and quantity (number of procedures performed annually) but also in scope, so that greater benefit has been accorded our patients with lower risk. This is a desirable trend and one that approaches the ideal for a modern medical teaching center.

The main objectives in Surgery, as in any clinical department, are the best in patient care, teaching and research. These three objectives are inseparable, and progress toward one cannot be made without attention to the other two. To neglect any one of the three detracts from all.

The Department consists of three general surgical services and six specialties, with a total allotment of 250 beds distributed as follows:

General Surgery	120
Neurosurgery	15
Ophthalmology	19
Orthopedics	15
Otolaryngology	16
Plastic Surgery	11
Urology	49
Emergency	5
	250

To these beds 5,567 patients were admitted in 1949 with an average daily bed census of 188. 5,549 operations were performed on this group with 74 deaths, an operative mortality rate of 1.3 per cent. In addition 15 patients died without operation, giving a case mortality rate of 1.6 per cent. Autopsies were obtained in 66 cases, or 74.1 per cent of the deaths.

The private service (approximately 150 surgical beds) admitted 4,352 patients on whom 3,746 operations were performed with 39 deaths following operation and 17 non-operative deaths. This gave an operative mortality rate of 1.04 per cent and a case rate of 1.3 per cent.

The total admissions to Surgery were thus 9,919 for 9,295 operations. There were 145 deaths in all, a mortality rate of 1.5 per cent.

An important specialty serving all patients is Dental Surgery. Although operating without designation of beds, it cares directly and in consultation for a large number of patients. Similarly organized, but even more intimately associated with all patients requiring operation is the section of Anesthesiology.

Surgical Pathology provides the tissue diagnosis for well over 90 per cent of all surgical patients and enables the surgeon to proceed with assurance in doubtful cases at the time of primary operation.

Facilitating recovery in many surgical problems is physiotherapy. This specialty is playing an increasingly important part

in the rehabilitation of those patients incapacitated by surgery, disease, or congenital deformity.

The end results of surgical therapy are evaluated by the Surgical Follow-Up Clinic, where a true perspective of old and new methods and procedures is obtained. Lastly, are the Out-Patient Department and the Emergency Pavilion where all services are employed in the care of ambulatory patients and emergency admissions.

TEACHING

The Department of Surgery is so organized as to place particular emphasis on its teaching program. This program falls into two parts, undergraduate and graduate teaching. The three services of General Surgery and the six surgical specialties, supplemented by the sections of Anesthesia, Surgical Pathology and Surgical Follow-Up provide the material and facilities needed for a progressive, integrated outline of study.

For the undergraduate, this begins in his second year when he attends lectures on the fundamental principles and problems of surgery that will concern him throughout his undergraduate course. A radical change was made in the curriculum this year, in that the students now begin their surgical clinical training in the Out-Patient Department during their third year, rather than in the fourth as formerly. Thus they gain an overall perspective of surgical problems and the therapy they require earlier in their training. In the fourth year they then center their attention, as clinical clerks on the surgical pavilions, upon the solution of these problems in those patients requiring hospitalization for surgery. The details of the more advanced technical problems are, it is believed, better understood by the student who has had a wider experience in clinical diagnosis from working with the out- patients first, as this new schedule provides. Since the fourth year is now divided into fifths rather than trimesters, the number of students in each group is smaller than is the case with the third year groups. This makes the student's association with the senior and resident staffs much closer, both in the Out-Patient Department and on the pavilions.

These major changes in the curriculum have resulted in a better integration of instruction, and although it has placed a greater workload on the senior and resident staffs, it has provided the students with a more individualized type of instruction

and supervision. Only slight additions have been made in our graduate training under the resident system. These are, in reality, only a restoration of facilities that were of necessity dropped during the war years.

The Department of Surgery here at The New York Hospital—Cornell Medical Center, with its three sections of general surgery and six surgical specialties, provides one of the most comprehensive programs for graduate training of any surgical department in the United States. As stated before, a total of 250 teaching beds are under the direction of the Surgeon-in-Chief, his two chief associates, and the six specialty heads. In addition, but also a part of the clinical teaching organization, there are the sections of Surgical Research, Anesthesiology, Surgical Pathology, Physical Medicine and Dental Surgery. The resident staff also participates in surgical grand rounds each Saturday morning, a monthly staff meeting, a weekly fracture conference, a weekly clinical pathological conference, and daily ward rounds with the residents.

Commencing as an Intern, then advancing to Assistant Resident and finally Resident, a member of the resident staff is gradually given more and more responsibility as his training progresses. It is the aim of the Surgeon-in-Chief to provide his resident staff with the type of training that will enable them to enter the practice of general surgery or one of the surgical specialties independently and with credit to the profession, yet at the same time to continue with teaching and investigation.

SENIOR STAFF

The Surgeon-in-Chief and his immediate associates, Dr. Charles Gardner Child and Dr. Samuel Wilson Moore, have been assisted by Dr. William A. Barnes and Dr. William Nickel in General Surgery. The attending surgeons in charge of the various specialties have been:

Neurosurgery	Dr. Bronson Ray
Ophthalmology	Dr. John McLean
Orthopedics	Dr. Frederick Liebolt
Otolaryngology	Dr. James Moore
Plastic Surgery	Dr. Herbert Conway
Urology	Dr. Victor Marshall
Urology—Brady	Dr. Oswald Lowsley

The senior staff of the Department totals approximately 130 and the resident staff 61.

On September 29, 1949 the two urological services were combined as the Department of Urology, James Buchanan Brady Foundation, with Dr. Victor Marshall as Attending Surgeon-in-charge.

On completion of his residency, Dr. John M. Beal, Jr. became an Assistant Attending Surgeon and Instructor in the Medical College, devoting his time primarily to cardiovascular research. On June 30th, however, he left the Department to accept an excellent senior position in the surgical department of the medical school at the University of California at Los Angeles. Except for his war service, he had been a member of the Department since his internship in 1941.

The Department lost four members of the senior staff by death during the year: Dr. Edward L. Keyes, Consultant in Urology and formerly in charge of the Cornell urological service, who died March 16, 1949; Dr. Eugene H. Pool, Consultant in Surgery and formerly Attending Surgeon in charge of the Second Surgical Division of the old New York Hospital at Sixteenth Street, who died April 9th; Dr. Roy B. Henline, Attending Surgeon of the Brady Urology service, May 23, 1949, and Dr. Clyde E. McDannald, Consultant in Ophthalmology, who died August 13, 1949.

On July 1, 1949, Dr. William DeWitt Andrus succeeded Dr. Guilford Dudley as Director of the Cornell surgical service at Bellevue Hospital. Several members of the Department, including Dr. Cranston Holman, Dr. John Eckel, Dr. James Dingwall and others, have given their assistance to Dr. Andrus in undertaking what promises to be a closer relationship between this Department and our service at Bellevue. The close association between our Urology service and that of Memorial Hospital has also been continued.

GENERAL SURGERY

The position that represents the longest and most demanding period of training for the resident staff is that of Resident Surgeon on one of the three general surgical services. These three positions were held in 1949 by Dr. Roscoe Wilcox, Dr. Ward O'Sullivan, Dr. Sam Burnett, Dr. Vincent Gorman, who succeeded Dr. Wilcox on July first, and Dr. Earl O'Neill who succeeded Dr. Burnett at the same time. Dr. Wilcox is now chief of the surgical

service at the Los Alamos Hospital in New Mexico. Dr. Burnett resigned to enter private surgical practice in Dallas, Texas. On completion of his training, Dr. O'Sullivan will become Assistant Attending Surgeon on January 1, 1950.

The three First Assistant Resident Surgeons on General Surgery have been Dr. James Davis, who succeeded Dr. Gorman on July 1st, Dr. Francis Jackson, and Dr. David Speer, who succeeded Dr. O'Neill on July 1st.

The Assistant Residents have been Dr. Paul Braunstein, Dr. Henry Cleveland, Dr. James Cousar (until June 30th), Dr. Peter Dineen, Dr. Howard Dunbar who became Resident in Neurosurgery July 1st, Dr. John Glasson who transferred to the Orthopedic service July 1st, Dr. Arthur Gore, Dr. Louis Hamman (until June 30th), Dr. George Holswade who held a Research fellowship the second half of the year, Dr. Richard Karl, Dr. Henry Kramer, transferred to Neurosurgery July 1st, Dr. Roy D. McClure, Dr. Ross McElwee, Dr. Gilbert I. Smith, and since July 1st, Dr. John Bowe and Dr. Charles Dyer.

On completion of their internships, Dr. Robert Dow, Dr. Albert Isenhour, Dr. Charles Harrison, Dr. Antonio La Sorte, Dr. Alan Nichols and Dr. Bjorn Thorbjarnarson also received Assistant Resident Surgeon appointments.

The remaining Interns during the first six months of the year were Dr. Joseph Bonta, Dr. Lee Brown, Dr. Herschel Copelan, Dr. Mitchell Cummins, Dr. Howard Hewitt, Dr. Michael Rapak, Dr. Richard Stanwood and Dr. Eric Yuhl.

Dr. Mitchell Cummins, after serving ably as an Intern in Surgery, was appointed Assistant Resident in Radiology, and Dr. Howard Hewitt accepted a year's appointment at the University of Michigan Hospital in Ann Arbor under Dr. Coller where he is studying water and electrolyte balance in patients, with particular emphasis on potassium concentration. He will return as Assistant Resident Surgeon in July 1950.

The new Interns appointed July 1, 1949 were Dr. Harris Anderson from Northwestern University, Dr. Frank Bixby, previously Intern in Pediatrics, Dr. Paul Brown from Harvard, Dr. Hugh Davidson from the University of Pa. and a year's internship at Bellevue, Dr. John Emmett from the Department of Public Health, Dr. John Fenger from Yale, Dr. Richard Flandreau of Cornell, Dr. Edward Free from Stanford, Dr. Gunnar Gunderson of Harvard and a year at Massachusetts Memorial

Hospital, Dr. Charles Hamilton from Vanderbilt, Dr. Lester Martin from Harvard, Dr. Harold Unger of Physician & Surgeons (Columbia) and a year at Mt. Sinai, Dr. George Wantz, Michigan 1946, from the Pathology Department of Presbyterian Hospital in Chicago, and Dr. Donald Weeks of Virginia.

General surgery admitted 2,793 patients to its three services during 1949. There were six non-operative deaths in this group with autopsies obtained in five instances. 2,940 operations were performed on the group with 42 deaths, an operative mortality rate of 1.4 per cent. Autopsies were obtained in 37 cases or 76.6 per cent.

302 operations were performed for hernia, 285 for appendicitis and its complications, 167 for diseases of the thyroid gland, 140 for non-cancerous diseases of the rectum and anus, all without a death, and 267 for non-malignant diseases of the gallbladder and biliary tract with four deaths. The mortality rate from these 1,161 common operations was thus .34 per cent.

2,156 private patients were admitted for 1,895 operations, with 32 deaths, 11 non-operative. The operative mortality rate on the private side was thus 1.1 per cent.

NEUROSURGERY

During 1949 the neurosurgical staff, headed by Dr. Bronson Ray, was made up of three senior neurosurgeons, a resident and two assistant residents, one rotating from General Surgery, and a rotating surgical Intern. This is the full resident complement desired. It provides an adequate staff for the care of both pavilion and private patients, operating work, coverage in the Out-Patient Department, and pursuit of investigative problems. The training given the resident staff is acceptable for qualification by the American Board of Neurosurgery. Dr. Howard Dunbar held the position of Resident after July 1st, and Dr. Henry Kramer that of Assistant Resident.

During the year 299 patients were admitted to the 15 neurosurgical pavilion beds with 430 operations performed on these and other pavilion patients. There were 25 deaths, two being non-operative, an operative mortality rate of 5.3 per cent. About half of the operations were performed by the senior staff and half by the resident staff. There were 170 private and semi-private patients admitted and 196 operations performed on them with 11 deaths, an operative mortality rate of 5.6 per cent.

Clinical investigation of the sympathetic nervous system was continued, supported chiefly by a grant from the Markle Foundation. A project was also initiated on adrenolytic agents. The service continues to work in close cooperation with the neurological section of the Department of Medicine.

OPHTHALMOLOGY

Dr. John McLean, Attending Surgeon in charge of Ophthalmology, has had as his immediate associates, Dr. Edward Dunlap and Dr. Dan M. Gordon. The activities of the section have been augmented by a total senior staff of 11. Dr. Elizabeth F. Constantine and Dr. Austin I. Fink joined the Out-Patient staff early in the year. The resident staff totals four. Dr. Richard C. Troutman became Resident on April 1, 1949, replacing Dr. J. Harry Duncan who completed his training. Dr. Wilfred D. McCusker became First Assistant Resident on April 1st and will assume the residency on January 1, 1950. Dr. Franklyn P. Bousquet and Dr. Irving Baras have been the Assistant Residents.

During 1949 there were 442 admissions to the 19 pavilion beds of Ophthalmology and 470 operations were performed, 56 per cent more than last year. There were 221 private admissions and 211 operations. There were no deaths on either service.

The joint study with the Department of Obstetrics on ocular changes associated with the toxemias of pregnancy has shown much progress and is nearing completion. The study on the relationship of anesthesia to intra-ocular pressure is being continued as well as clinical studies on systemic therapy for glaucoma. Dr. Troutman, the Resident, has perfected a prosthetic device for transmitting motion to artificial eyes through a pair of permanent magnets. This has been turned over to the Research Corporation for patent control and promises to be very useful to those who have lost an eye.

ORTHOPEDICS

The section of Orthopedics has been under the direction of Dr. Frederick L. Liebolt, assisted by Dr. John Schmidt. The senior staff in all totals 12 in this specialty. The resident staff totals four: the Resident, a First Assistant Resident, an Assistant Resident rotating from General Surgery for six months and dividing his time equally between Orthopedics and Plastic Surgery,

and a surgical intern rotating on the same basis for one month.

Dr. Daniel C. Riordan completed his resident training on July 1st and entered orthopedic practice in New Orleans. He was succeeded by Dr. Thomas R. Ivers. Dr. John Glasson, formerly an Assistant Resident on General Surgery, became First Assistant Resident on July 1st.

171 patients were admitted to the 12 pavilion orthopedic beds during 1949 and 135 operations were performed. Many of these were major procedures that required not only a long and tedious operation but prolonged postoperative hospital care as well. There were 264 private admissions and 182 private operations done. Equipment in the form of new and more specialized surgical instruments for the more involved orthopedic procedures has been obtained, and a simplified type of overhead traction apparatus for hospital beds has been installed.

Under a generous grant for orthopedic research from the Marguerite Davis Estate, a research group was organized with Mr. Edward Farrell as Senior Technical Assistant, aided by a research clerk and an illustrator. Reports on foot problems in children and tears of the medial meniscus were completed, and a book on fractures and an atlas of orthopedic procedures has been started. The investigations on Caffey's disease and tendon injuries of the hand are also being continued.

OTOLARYNGOLOGY

Dr. James Moore, Attending Surgeon in charge of Otolaryngology, has a senior staff of 14 and a resident staff of four to cover this service. The residency has been approved by the Council on Medical Education and Hospitals of the American Medical Association.

Dr. William A. Miller completed the otolaryngology residency on July 1 and was succeeded by Dr. John S. Martin. Dr. Jefferson Davis, the Navy appointee, completed his year's appointment on February 1, 1949. Dr. Richard A. Gaillard, his predecessor, has remained as Provisional Assistant Surgeon to Out-Patients. The other Assistant Residents have been Rodolfo Bolanos-Vargas, Frank Hoffman and Thomas D. Rees, the latter two coming on July first.

A total of 883 patients were admitted to the 16 pavilion beds of this service, on whom 704 operations were performed with two deaths, a mortality rate of 0.3 per cent. 605 operations

were performed on 772 private patients with one death, or a mortality rate of .16 per cent. The trend toward greater magnitude in procedures continues, and includes laryngectomies, laryngofissures, radical neck dissection, resection of the mandible, and direct attack on malignant tumors of the head and neck. The results of the Lempert fenestration operation for clinical otosclerosis continue to be encouraging. A report on twenty of these patients has been completed. Investigative work is being carried out on the anatomy of the temporal bone and methods of evaluating impairment of hearing and speech. The otolaryngology instruction room opened last year has made teaching much more efficient. It also provides a central meeting place for the service.

PLASTIC SURGERY

Dr. Herbert Conway, Attending Surgeon in charge of Plastic Surgery, has been assisted by a Resident staff of three: a Resident, an Assistant Resident rotating for six months from General Surgery and shared with the Orthopedic service, and a surgical Intern also rotating for one month on the same basis. Dr. Charles Neumann completed the Plastic Surgery residency on July 1st and was succeeded by Dr. John C. Weeter from the Veterans Hospital, Bronx, N. Y. Dr. Neumann is now in charge of Plastic Surgery at Bellevue Hospital on the 4th Surgical Division.

A total of 183 patients were admitted to the 11 pavilion beds of this service upon whom 287 operations were performed with no deaths. There were 168 private patients admitted for 214 operations with two deaths.

The long range program on patients with harelip and cleft palate has continued with the assistance of a speech therapist in the Plastic Surgery Clinic, and good progress has been made with many of these difficult cases. New sound-recording equipment, purchased with funds from the New York State Association for Crippled Children has made it possible to keep a speech record on each patient, which will be of great value not only in managing the individual cases, but in building up a library for clinical demonstrations. The orthodontia necessary for this group of patients is supported by the Astor Plastic Surgery Fund, providing facilities for long range care of dental abnormalities. Dr. Robert M. Cole, Astor Assistant Orthodontic Surgeon to Out-Patients, has 17 of these patients under his care, and Dr. Joseph

Eby serves as Consultant in Orthodontia to the Dental Clinic on these cases. Clinical research has been continued on the operations for speech improvement. The service has seen an increased number of patients needing surgical reconstruction following radical removal of primary or recurrent tumors of the head and neck.

UROLOGY

On Sept. 29, 1949 Dr. Oswald S. Lowsley retired as Director of the James Buchanan Brady Foundation, and the two urological services of The New York Hospital were therefore combined under Dr. Victor Marshall as Attending Surgeon in charge. The new unit is known as the Department of Urology, James Buchanan Brady Foundation of The New York Hospital and is the section of urology of the Department of Surgery. Dr. Lowsley was appointed Consultant in Urology and the attending staffs of the two services were united with all continuing their appointments under Dr. Marshall except Dr. Thomas J. Kirwin, former Assistant Director of the Brady Foundation, who became Professor of Urology at the New York Medical College on Oct. 11, 1949.

The duplication in the resident staff organization was continued through the year, but on January 1, 1950 the two staffs will be consolidated under a single Resident. Dr. Paul F. Boyd has held the position of Brady Resident during the year, with Dr. Eugenio E. Lins as Assistant Resident and Dr. James O. Hale as Intern. Dr. Henry E. Wolfe replaced Dr. Alvin Galuska as the Navy appointee Intern on this service on July 1st, and Dr. William H. Boyce has served as Provisional Assistant Surgeon to In-Patients. On the Cornell service, Dr. Robert D. Deans has held the Residency, with Dr. James L. Green as First Assistant Resident. On July 1st, Dr. Albert J. Paquin replaced Dr. Edward Brady as Assistant Resident. Dr. Brady returned to Bellevue.

Closer liaison with the urological service of Memorial Hospital is in progress and it is anticipated that during 1950 members of The New York Hospital urological resident staff will be appointed to the enlarged resident service at Memorial some time during their period of training.

Dr. Carl J. Schmidlapp, who completed his urological residency on January 1st, became Assistant Attending Surgeon, Urology on July 1st.

The pavilion beds of the two urological services together numbered 49, to which 796 patients were admitted during the year. 583 operations were performed with 6 deaths, an operative mortality rate of one per cent. There were also six non-operative deaths. 601 private patients were admitted for 443 operations, with a total of nine deaths, four operative and five non-operative.

During the year investigation of more radical procedures for treating carcinoma of the bladder and prostate has been carried on and a special study of the anatomy of the perineum in its relation to urological procedures was undertaken. Dr. Alfonso Davalos has continued his work as Research Fellow, devoting his entire time to new techniques for anastomosis of the ureter and urethra. An impotence clinic under the direction of Dr. Gustavus A. Humphreys has been established and is being conducted in close cooperation with the clinic on psychosomatic medicine.

SURGICAL PATHOLOGY

Dr. John M. Pearce, in charge of Surgical Pathology, is a member of the Department of Pathology as well. During the year he has provided training periods in pathological diagnosis to 26 members of the resident staff, 17 from the Department of Surgery and 9 from the Department of Pathology. Close cooperation between the two departments has thus extended the field of training in this special phase of medicine that is so important to both surgeon and pathologist. The undergraduate course in surgical pathology for the medical students was reinstated this year. A new deep freeze unit has made it possible to provide them with a larger collection of fresh surgical specimens for study. These have been supplemented with kodachrome photographs and microscopic sections.

There was a further increase in the work load during the year, from 7394 specimens examined in 1948 to 7646 in 1949. 1364, or 17.8 per cent of these were from patients with malignancy.

DENTAL SURGERY

There was a further increase in the service rendered by this section during 1949. Following reorganization of the section last year, Dr. George Egan, Attending Dental Surgeon in charge, has been able to extend the scope of dental surgery to provide treatment and consultation for a wider range of patients, both clinical

and pavilion. These cases include trauma, infection, and tumor growth in its relation to dental surgery. Particular progress has been made in the treatment of chronic osteomyelitis of the mandible. Never before has better understanding and cooperation existed between the dental group and other sections of the surgical service in dealing with these difficult clinical problems. Dr. Egan has been ably assisted by Dr. Stanley Behrman who assumed a fulltime position in the Dental Clinic on July 1st, and by his senior attending staff which now numbers twenty-one.

OUT-PATIENT DEPARTMENT

The Out-Patient Department continued most active throughout the year. General surgery and its specialties saw a total of approximately 18,000 new patients in 1949, with a total of approximately 97,500 patient-visits for the year. 1,045 operations were performed in the Minor Surgery operating room, and 331 plaster casts were applied. Due to the shift in student instruction in the clinics from the fourth year to the third year of the curriculum, a larger senior staff has been needed for both morning and afternoon clinic sessions, particularly in the Diagnostic and Minor Surgery clinics.

There are 14 separate clinics in the Out-Patient Department under the direction of the Department of Surgery. The two just mentioned above are two of the busiest. In the Surgical Diagnostic Clinic an opportunity for accurate diagnosis is afforded, and in the Minor Surgery Clinic patients receive ambulatory therapy. Those requiring hospitalization are referred to the pavilion services.

Under the direction of Dr. Preston A. Wade the Fracture Clinic has undergone rapid development and now constitutes one of the best attended sessions of the Out-Patient Department. In the Ear, Nose & Throat Clinic special attention has been directed to the use of hearing aids in correlation with the endaural operation for deafness. The speech training program carried on in the Plastic Surgery Clinic has proved most fruitful for patients with congenital anomalies of the lip and palate. As mentioned above, the changes made by Dr. Egan in the Dental Clinic have proved most successful and permit more efficient handling of a greater number of patients.

The Emergency Room, where Surgery maintains five beds, has carried a greater patient load than ever before. At the present

time it is undergoing alterations that will permit greater efficiency in caring for emergency patients.

The nursing service in the clinics has been most satisfactory, with little or no turnover in personnel throughout the year. Perhaps no other factor is quite as important to the smooth operation of the Out-Patient Department than permanency in the nursing personnel. Supplementing the senior nursing staff have been the clinic aides under the able direction of Miss Katherine Tooley. The degree of cooperation given by both the nursing service and the clinic aides has made the work of the professional staff much easier.

PHYSICAL THERAPY

Directed by Dr. Kristian G. Hansson, this section has had an unusually busy year. A total of 27,485 treatments were given to 2,506 patients, among whom were a large number recovering from extensive orthopedic operations and unusual fractures. There were also many regaining the use of their extremities following neurosurgical procedures. These examples are mentioned as evidence of the increasing demand for rehabilitation in connection with long convalescences that has been coming from almost all services, both surgical and medical. To meet this demand, full use has been made of the therapeutic pool and another gymnasium has been added, containing parallel bars with mirrors, a stationary bicycle, a rowing machine, and stairs. There is still, however, a lack of occupational therapy facilities.

Although a number of poliomyelitis patients are treated every year by physiotherapy, this group was sharply increased last fall by the epidemic in New York City of the past summer. A special polio pavilion was opened and a large share of the responsibility for the care of these patients was carried by the Physical Therapy section. 65 new patients have been treated since August 1st, and the total number of treatments given has reached 2,456. The first objective in treating polio patients is to lessen muscle tightness by means of packs, hot water tanks, the therapeutic pool, and passive stretching. Second, is to increase muscle power by muscle re-education. Third, is to mobilize the patient by the use of supports such as corsets, crutches and braces. A fourth objective is rehabilitation with emphasis on increasing the patient's usefulness. The National Foundation for Infantile Paralysis is helping us carry out this program and is supporting three therapists.

SURGICAL FOLLOW-UP CLINIC

As rapid strides are made in surgery, an ever-present problem increases in importance, namely, what are the end results of these new procedures and to what extent have patients been permanently benefited by them? In the Surgical Follow-Up Clinic this question is continually asked and the information obtained is of great importance not only to us but to other surgical clinics throughout the country. Only through careful and continuous follow-up is it possible to properly evaluate the procedures and methods that are being employed. The Surgical Follow-Up Clinic here is one of the few of its kind in the country that has been functioning for a number of years, gathering the information that is so important in establishing the end results of surgical therapy.

During 1949, 12,073 patients were followed and the number of closed cases was increased to 24,975. Follow-up examinations were given to 1,399 patients, 5,228 patients were examined at the 29 Sunday Follow-Up clinics held during the year, of which 2,217 were referred to the Out-Patient Department for further examination or treatment, and 137 were advised to re-enter the hospital.

OPERATING ROOMS

The operating rooms for both pavilion and private patients have continued to function as one unit. 10,984 operations and treatments were carried out in 1949 as against 11,380 for the previous year. The five-day week in the operating rooms has been maintained, but it seems likely that in the near future elective operating on Saturdays may be resumed in order to equalize the bed census through the weekends.

Miss M. R. Carbery, Assistant Professor of Surgical Nursing, is on leave of absence to pursue postgraduate study. Her position has been held by Miss E. E. Tuffley, Faculty Instructor in Surgical Nursing. The past year has amply demonstrated the advisability of making this facility a separate department in the School of Nursing.

ANESTHESIA

The Anesthetist-in-charge, Dr. Joseph Artusio, has been assisted this year by a resident staff of two and 19 nurse anesthetists. There have also been six student nurse anesthetists. Enter-

ing his second year of anesthesia training, Dr. Benjamin Marbury, one of the two Assistant Residents in Anesthesia, will become Resident in Anesthesiology on January 1, 1950. Two more Assistant Residents will be taken on in 1950. In addition to the regular staff, three other private anesthetists have also been available on the Baker Pavilion service.

Undergraduate instruction in anesthesia is given chiefly in the third and fourth years of medical school and consists of demonstration in practical application, both in the laboratory and in the operating room, as well as presentation of didactic material. The scope of instruction for both junior and senior staff has been extended to include basic material from the Departments of Chemistry, Pharmacology, Physiology and Anatomy relating to anesthesia. Meetings with anesthetists from other institutions continue to be an integral part of the instruction for the entire staff and provides a means of widening the background in this rapidly developing specialty.

The total of 8,234 anesthesias administered by the staff during the year exceeded the 1948 total by approximately 600, yet the number of complications resulting from anesthesia, 49, was only a little over half the 1948 total of 88. 33 of these 49 complications, or 67 per cent, were pulmonary, whereas in 1948 there were 70 pulmonary complications. Only half of the pulmonary complications were directly associated with anesthesia and only 1.6 per cent proved fatal. Atelectasis continued to be the primary pulmonary complication, with pneumonia second. The remaining 16 extra-pulmonary complications of 1949 were associated with a 33 per cent mortality. Of the 74 deaths occurring on the surgical pavilions following operation, only four were related to anesthesia. One of these occurred on the operating table. It is believed that employing the anesthetist as a consultant prior to each surgical procedure is one of the chief factors contributing to this admirable record, which sets a new standard for anesthesia at The New York Hospital.

The chief anesthetics used, either alone or in conjunction with other agents, were distributed as follows:

Cyclopropane	1,868
Local or block	1,855
Pentothal	1,726
Open ether	1,437
Nitrous oxide	1,122
Vinethene	131
Avertin	84
Miscellaneous	11
	8,234
Curare	1,374
Endotracheal	1,606
Pavilion	5,508
Private	2,726
	8,234
By private anesthetists	180
	8,414

Clinical research has been carried on in the development of a safe and non-traumatic anesthesia for children. In conjunction with the Department of Anatomy, a method of cardiac resuscitation, using a direct condenser type of discharge is being developed. A new anti-curare drug is also being developed in conjunction with the Department of Pharmacology.

LABORATORIES FOR SURGICAL RESEARCH

The Laboratories for Surgical Research have been actively engaged in a number of projects vitally important to further advance in surgical progress. These include studies in revascularization of the myocardium, cardiac fibrillation, preservation of viable blood vessels, the effect of acute occlusion of the portal vein on hepatic function, the feasibility of resecting the portal vein with the pancreas to cure malignant pancreatic tumors, the use of various suture materials for end-to-end approximation of large arteries, and the experimental production of lung abscesses. Studies are also being continued on growth-promoting sub-

stances, ulcerative colitis, hypertension, coarctation of the aorta, arterial and venous shunts, and the rate of revascularization in various types of skin grafts.

During the past year the Department added to its research facilities a laboratory devoted to the study of metabolism problems as they are encountered in both acutely and chronically ill surgical patients. This laboratory is the result of a long felt need for investigation and correction at research levels of abnormal biochemical changes appearing in surgical patients. Studies have already been initiated in blood volume, the extra-cellular fluid compartment, and serum sodium and potassium concentrations. This laboratory will also be able to provide accurate and readily available biochemical studies when needed to document the Department's work on experimental animals. It is obvious that to maintain and promote such a laboratory additional and guaranteed recurrent financial support will be needed.

Grants in aid of research received during 1949 were:

United States Public Health Service:

Vascularization of transplanted soft tissues	$14,000.00
Experimental pancreaticoduodenectomy	11,496.16
Ulcerative colitis	7,218.57
Plastic surgery	4,364.00
Fate of an artery implanted in the myocardium	3,120.00
Anatomic study of perineal structure	1,771.00
Davis Orthopedic Fund	25,000.00
Astor Plastic Surgery Fund	5,000.00
Marguerite Davis Estate	5,000.00
James Foundation	5,000.00
John & Mary Markle Foundation	5,000.00
Childs Foundation — tumor clinic	4,000.00
New York Heart Association	3,150.00
American Cancer Society	2,650.00
Marie H. Clemens — orthopedics	2,500.00
United Hospital Fund — hernia	1,200.00
Max J. Shapiro — plastic surgery	1,000.00
Grace Line	600.00
Burroughs Welcome	500.00
Miscellaneous	2,772.06
	$105,341.79

Progress in surgery is the result of both clinical and laboratory research. It is costly and so is reluctantly considered a necessity by those primarily concerned with hospital administration for there is rarely an immediate monetary return from such endeavor. Several sources may be approached at the present time for money to carry on research that has been developed to a productive phase, but almost without exception grants from these sources are for a short period of time only and cover only materials used and limited assistance. Funds obtained on such a basis, therefore, are not conducive to long term programs nor do they defray the expenses incurred by pilot projects or the overhead costs of the laboratory in general. The funds allocated for research by the Department's budget are so limited that our overall research program remains seriously curtailed. A budget that would provide for an adequate and basic research organization and the support of pilot projects is one of the most urgent needs of the Department.

Fellowships are also needed to enable those of our resident staff who are sufficiently interested and properly equipped to undertake special studies in new surgical developments at other institutions. After a year of such study these men could rejoin our staff, bringing with them new interest and knowledge thus developed. Such cross fertilization of thought amongst our medical centers would prove most profitable within a short period of time. Such fellowships are needed in both general surgery and its specialties and in the ancillary services.

At some of the leading surgical clinics of the country the custom has been established of inviting outstanding surgeons from other parts of the world to act as surgeon-in-chief for a short period each year. He lives at the hospital with the residents and participates in the routine clinical work while demonstrating his own contributions. As a member of the resident staff that worked under the late Harvey Cushing, I can well attest to the fact that this is a broadening experience for surgeons in training. The cost to the institution is not great, since it consists of little more than the travel expenses of the surgeon-in-chief pro temp.

Surgical departments of large teaching medical centers have certain extra mural responsibilities toward the surgery practiced in their communities. These responsibilities are admittedly somewhat ill-defined and often intangible, nevertheless they are

actual. They deal with the surgical standards and the surgical philosophy practiced in the community. Without jurisdiction over, command or obligation to the smaller hospitals in the community, the medical center develops and establishes its surgical standards by employing its facilities and materials to achieve the ideal. If the smaller hospitals in the community are to benefit quickly from advances made at the center, communication channels need be more direct. The public forms of communication, the telephone, radio, television, or newspaper, are not the proper channels for such direct communication. Rather, it should be through individual surgeons who, with interest and activity in the two institutions, are continuously bringing about closer association. The framework for such an interlocking or bridging structure should begin at the level of the house staff, with an exchange of personnel for limited periods, and continue up through the senior staff.

Children's surgery has now developed to a stage where further progress is dependent upon more adequate facilities. These are to be had by combining the medical aspects of pediatrics with surgical techniques and experiences common to infants and children. The future advancement of surgery in infants and children depends upon the combined contributions from both pediatrician and surgeon. When we can be provided with such facilities, the Departments of Pediatrics and Surgery will be able to set up an ideal unit.

The merit of the medical center type of general hospital lies in the availability of all resources to all departments and cooperation between departments. The solution of major clinical problems requires the know-how that is to be found in the institution as a whole. It is axiomatic that the closer the cooperation between departments and the more frequently interests are pooled to solve problems common to more than one phase of medicine, the greater will be the progress made. I believe that this policy has been more successfully pursued by the Departments of Medicine and Surgery in 1949 than ever before in the history of the Center. This has not been the result of common interests alone, but is due to mutual understanding between the heads of the two departments.

It is the policy of the Department of Surgery to place its chief emphasis on general surgery, but at the same time advance the six specialties of neurosurgery, ophthalmology, orthopedics, otolaryngology, plastic surgery and urology within our capacity.

We believe that in this way the best interests of our patients are served and that those who receive their graduate training with us will be better qualified to enter practice in general surgery or its specialties. It is strongly felt by the Surgeon-in-Chief that the trend now evident in this country toward over-specialization is unfortunate because more and more young men are seeking training in the specialties without first completing their full basic training in general surgery. The basic principles of general surgery apply to every specialty, and adequate training in general surgery provides the best foundation for evaluating a patient's condition without undue emphasis on the part of the human anatomy that may be the specialist's chief concern. For these reasons further subdivision of the Department into additional specialties is not contemplated.

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SUMMARY OF SURGICAL ADMISSIONS AND OPERATIONS

1949

PAVILION	*Beds*	*Admissions*	*Operations*	*Deaths* Oper.	Non-op.
General Surgery	120	2,793	2,940	42	6
Neurosurgery	15	299	430	23	2
Ophthalmology	19	442	470	—	—
Orthopedics	15	171	135	1	1
Otolaryngology	16	883	704	2	—
Plastic Surgery	11	183	287	—	—
Urology	49	796	583	6	6
Emergency	5				
Total	250	5,567	5,549	74	15
				89	
PRIVATE					
General Surgery		2,156	1,895	21	11
Neurosurgery		170	196	11	—
Ophthalmology		221	211	—	—
Orthopedics		264	182	1	—
Otolaryngology		772	605	1	—
Plastic Surgery		168	214	1	1
Urology		601	443	4	5
Total	150	4,352	3,746	39	17
				56	
Grand Total		9,919	9,295	113	32
				145	

CLASSIFICATION OF OPERATIONS

(Pavilion)

Department of Surgery

Grafts:

Preparation of pedicle or tube graft	29
Cutting of pedicle or tube graft	30
Pinch grafts	26
Thin split grafts	46
Intermediate split grafts	23
Cartilage grafts	2
	156

Subcutaneous Tissue:

Incision and drainage of subcutaneous abscess	57
Local excision of lesion of subcutaneous tissue	115
Wide excision of lesion of subcutaneous space	11
Excision of pilonidal sinus	37
Secondary closure of wound	28
Exploration of wound	18
	266

Abdominal Wall:

Exploratory celiotomy	37
Incision and drainage of intra-abdominal abscess	11
Abdominal paracentesis	1
Umbilectomy	1
Secondary suture of wound of abdominal wall	13
Biopsy of peritoneum	6
Removal of foreign body from peritoneal cavity	1
Hernia, inguinal	210
Hernia, femoral	18
Hernia, ventral	38
Hernia, epigastric	5
Hernia, umbilical	29
Hernia, diaphragmatic	2
	372

Skin:

Incision and drainage of lesions of skin	2
Excision of lesion of skin	104
Plastic repair of skin without graft	16
Z plastic on skin	5
Biopsy of lesion of skin	25
Debridement of burn of skin	6
	158

Breast:

Mastotomy	13
Local excision of lesion of breast	102
Simple mastectomy	5
Partial mastectomy	7
Radical mastectomy	47
Biopsy of breast	23
Mastoplasty	7
	204

Bones:

Removal of foreign body	19
Osteotomy	5
Local excision of lesion of bone	14
Partial ostectomy	27
Complete ostectomy	1
Insertion of traction device	4
Osteoplasty	1
Bone graft	3
Open reduction of fracture	35
Closed reduction of fracture	14
Spine fusion	6
Biopsy of sternal bone marrow	22
Operation for non-union of fracture	2
	153

Joints, Synovia and Cartilage:

Arthrotomy	2
Arthrostomy	1
Arthroplasty	1
Arthrodesis	8
Capsulotomy	2
Chondrectomy	1
Excision of intervertebral disk	27
Excision of semilunar cartilage of knee	15
Excision of lesion of joint	10
Manipulation of joint	2
Open reduction of dislocation	1
Closed reduction of dislocation	1
Synovectomy	3
Synchondrectomy	1
Epiphyseodesis	6
	81

Bursa:

Incision and drainage of bursa	1
Incision and removal of calcareous deposit	2
Excision of bursa	4
	7

CLASSIFICATION OF OPERATIONS

(Pavilion)—*Cont'd*

Department of Surgery

MUSCLES:

Myectomy	6
Local excision of lesion of muscle	10
Resection of muscle	9
Myoplasty	1
Myorrhaphy	1
Myotomy	1
	28

TENDONS:

Exploration of tendon or tendon sheath	2
Incision and drainage of tendon sheath	1
Tenotomy	4
Excision of lesion of tendon	22
Tenosynvectomy	2
Tenoplasty	1
Transposition of tendon	4
Tenorrhaphy	20
	56

FASCIA:

Fasciotomy	1
Excision of fascia	6
	7

EXTREMITIES:

Incision and drainage of infection of hand or fingers	16
Amputation of finger	9
Amputation of hand	1
Amputation of arm	1
Amputation of leg	11
Amputation of foot	4
Amputation of toe	14
Incision and drainage of infection of foot or toe	6
	62

NOSE:

Excision of lesion of nose	8
Septectomy	66
Rhinoplasty	34
Reduction of fracture of nose	1
	109

SINUSES:

Sinusotomy, simple	10
Sinusotomy, radical	14
Excision of lesion of accessory sinus	23
	47

LARYNX, TRACHEA, BRONCHUS, PHARYNX:

Laryngectomy, total	1
Laryngectomy, partial	1
Tracheotomy	6
Bronchoscopy	1
Implantation of radon seeds in throat	2
	11

TONSILS AND ADENOIDS:

Tonsilectomy	458
Adenoidectomy	29
	487

THORAX:

Thoracotomy with exploration	17
Thoracotomy with open drainage	8
Thoracoscopy	2
Thoracoplasty	19
	46

LUNGS:

Pneumonotomy	2
Total pneumonectomy	14
Total lobectomy	13
Pleurectomy	1
Pneumonolysis	2
	32

MEDIASTINUM:

Mediastinotomy	5
Mediastinotomy with removal of lesion	1
	6

HEART:

Ligation of patent ductus arteriosus	2

ARTERIES:

Arteriotomy	1
Arteriectomy	4
Arteriography	53
Arterial anastomosis	5
Aneurysmorrhaphy	1
Ligation of arteries (for coarctation)	6
	70

VEINS:

Phlebectomy	225
Venography	9
Ligation of veins	3

VEINS—*Cont'd*

Ligation of femoral veins	22
Operation for arteriovenous fistula	1
	260

SPLEEN, LYMPHATICS:

Splenectomy	12
Incision and drainage of abscess of lymph nodes	1
Local excision of lymph nodes	32
Radical excision of lymph nodes	9
Biopsy of lymph nodes	62
Implantation of radon seeds in lymph node of neck	1
	117

ORAL CAVITY:

Excision of lesion of mouth or lip	11
Biopsy of mouth or lip	4
Stomatoplasty	3
Cheiloplasty	5
Local excision of lesion of tongue	3
Partial glossectomy	2
Biopsy of tongue	1
Palatoplasty	5
Incision and drainage of abscess of salivary gland	2
Sialolithotomy	6
Excision of salivary gland	15
Repair of hare lip	8
Repair of cleft palate	9
Local excision lesion of dental ridges	1
Implantation of radon seeds in mouth	8
	83

ESOPHAGUS:

Esophagectomy	2
Esophagogastrectomy	3
Esophagogastrostomy	3
Excision of esophageal diverticulum	1
Closure of tracheo-esophageal fistula	1
	10

STOMACH:

Gastrotomy	5
Pyloromyotomy	13

STOMACH—*Cont'd*

Local excision of lesion of stomach	1
Partial gastrectomy	126
Total gastrectomy	5
Gastrostomy	4
Gastrorrhaphy	6
Gastroenterostomy	7
	167

SMALL INTESTINE:

Local excision of lesion	1
Resection	7
Enterostomy	3
Enteroenterostomy	9
Enterorrhaphy	4
Closure of fistula	1
Lysis of adhesions (small bowel obstruction)	17
Excision of Meckel's diverticulum	4
Reduction of intussusception	1
Reduction of vulvulus	1
	48

APPENDIX:

Appendectomy, chronic or incidental	39
Appendectomy, acute	209
Appendectomy, with drainage	36
Incision and drainage of appendiceal abscess	4
	288

COLON:

Colostomy	39
Closure of colostomy	11
Exteriorization of colon	1
Local excision of lesion	8
Right colectomy	11
Transverse colectomy	1
Descending or sigmoid colectomy	36
Total colectomy	1
Lysis of adhesions for obstruction of colon	1
Suture of large intestine	1
	110

RECTUM:

Abdomino-perineal resection of sigmoid and rectum	29
Perineal resection	1
Proctosigmoidoscopy	4

RECTUM—*Cont'd*
- Operation for prolapse of rectum 2
- Operation for closure of rectal fistula 1

37

ANUS:
- Fistulectomy 40
- Incision and drainage of perianal abscess 23
- Excision of lesion of anus and rectum 20
- Hemorrhoidectomy 44
- Anoplasty 2
- Dilation of anal sphincters 4

133

LIVER, BILIARY TRACT, PANCREAS:
- Hepatotomy with exploration 1
- Hepatotomy with drainage 2
- Biopsy of liver 12
- Local excision of lesion of liver 1
- Partial resection of liver 1
- Marsupialization of lesion of liver 1
- Suture of liver 1
- Cholecystectomy, chronic 185
- Cholecystectomy, acute 26
- Cholecystectomy and choledochotomy 31
- Cholecystostomy 8
- Cholecystenterostomy 1
- Biopsy of gallbladder 1
- Choledochotomy 6
- Choledochoplasty 5
- Choledochoenterostomy 4
- Hepatojejunostomy 1
- Choledochostomy 2
- Biopsy of pancreas 3
- Partial pancreatectomy 4
- Radical pancreaticoduodenectomy 3
- Pancreatotomy with drainage 1
- Marsupialization of pancreas 1

301

KIDNEY AND RENAL PELVIS:
- Incision and drainage of kidney 4
- Nephrectomy 35
- Incision and drainage of perirenal tissues 5
- Nephrostomy 17
- Pyeloplasty 7
- Pyelotomy 9

KIDNEY—*Cont'd*
- Nephrolithotomy 5
- Ureterotomy 12
- Ureterocystostomy 6
- Ureterosigmoidostomy 10
- Ureterostomy 5

115

BLADDER AND URETHRA:
- Cystotomy and cystostomy 28
- Local excision of lesion of bladder 36
- Partial cystectomy 4
- Total cystectomy 9
- Biopsy of bladder 6
- Cystoscopy 1
- Cystoplasty and cystopexy 4
- Cystorrhaphy 3
- Operation for bladder fistula 2
- Operations of urethra 21
- Pelvic evisceration 4

118

MALE GENITAL SYSTEM:

PENIS:
- Circumcision 12
- Local excision of lesion 2
- Amputation of penis 2
- Biopsy 1
- Plastic on penis 9

26

TESTIS:
- Orchiectomy 19
- Biopsy 1
- Orchiopexy 11

31

EPIDIDYMIS:
- Excision of lesion 2
- Epididymectomy 4
- Biopsy 1
- Epididmovasostomy 2

9

SCROTUM:
- Incision and drainage of abscess 2
- Local excision of lesion 3
- Plastic operation 5
- Vasectomy 27
- Excision of hydrocele 21
- Excision of varicocele 4

62

CLASSIFICATION OF OPERATIONS

(Pavilion)—*Cont'd*

Department of Surgery

PROSTATE:

Suprapubic prostatectomy	53
Perineal prostatectomy	11
Radical perineal prostatectomy	5
Transurethral electrosection	145
Retropubic prostatectomy	9
	223
Total Male Genital System	351

FEMALE GENITAL SYSTEM:

Operation on the vulva	1
Plastic repair of perineum	1
Salpingectomy	5
Oophorectomy	6
Supracervical hysterectomy	1
Hysteropexy	1
Control of bleeding from ovary	2
	17

ENDOCRINE:

Thyroidotomy	1
Thyroidectomy, non-toxic	107
Thyroidectomy, toxic	47
Thyroidectomy, total	7
Reopening thyroid wound for hemorrhage	1
Exploration of endocrine gland	2
Parathyroidectomy	2
Hypophysectomy	1
Adrenalectomy	3
Biopsy of endocrine gland	1
	172

SKULL, BRAIN, MENINGES:

Craniotomy, exploratory	10
Decompression	12
Biopsy of skull	2
Excision of tumor of skull	2
Cranioplasty	8
Open reduction of fracture of skull	2
Drainage of meninges	4
Excision of lesion of meninges	9
Encephalography	4
Ligation of meningeal vessels	1
Exploration of brain and biopsy	8
Incision and drainage of abscess	1
Lobotomy	8
Tractotomy	5
Local excision of lesion of brain	30
Resection of lobe of brain	1
Operation on choroid plexus	4

SKULL, BRAIN, MENINGES—*Cont'd*

Ventriculography	62
Ventriculostomy	1
	174

SPINAL CORD:

Laminectomy, exploratory	9
Decompression	4
Chordotomy	8
Rhizotomy	6
Excision of lesion of spinal cord	3
	30

NERVES:

Exploration of nerve	1
Neurotomy	3
Retrogasserian neurotomy	12
Acoustic neurotomy	2
Vagotomy	5
Phrenic nerve interruption	1
Excision of lesion of nerve	3
Neurectomy	3
Injection of nerve	2
Neuroplasty	3
Anastomosis of nerves	1
Neurotripsy	3
Sympathectomy for hypertension	65
Sympathectomy, other than for hypertension	34
	138

EYE:

Cataract extraction	176
Muscle operation	90
Plastic on eyelid	41
Reattachment of retina	23
Iridencleisis	22
Plastic on cornea	18
Enucleation	14
Conjunctival plastic	12
Ptosis operation	9
Iridectomy	8
Cyclodialysis	8
Discission	8
Dacrocystorhinostomy	8
Capsulectomy	5
Capsulotomy	5
Sclerectomy	4
Trephining	4
Corneal transplant	3
Iridotomy	3
Removal of orbital tumor	3
Dacryocystectomy	2

CLASSIFICATION OF OPERATIONS

(Pavilion)—*Cont'd*

Department of Surgery

EYE—*Cont'd*	
Repair of lacerated globe	1
Coreoplasty	1
Cyclodiathermy	1
Dacryoadenectomy	1
	470
EAR:	
Plastic reconstruction	1
Myringotomy	1
Ear plasty	5
Excision of local excision of ear	2
Bilateral otoplasty	9
Mastoidectomy, simple	5
EAR—*Cont'd*	
Mastoidectomy, endaural	14
Fenestration	11
	48
MISCELLANEOUS:	
Postoperative hemorrhage	1
Multiple extractions of teeth with curettage of alveolar ridge	1
	2
TOTAL PAVILION OPERATIONS:	5,549

CLASSIFICATION OF OPERATIONS

(Private)

Department of Surgery

GRAFTS:

Preparation of pedicle or tube graft	4
Cutting of pedicle or tube graft	5
Pinch grafts	7
Thin split grafts	13
Intermediate split grafts	11
Cartilage grafts	2
	42

SUBCUTANEOUS TISSUE:

Incision and drainage of subcutaneous abscess	20
Local excision of lesion of subcutaneous tissue	55
Wide excision of lesion of subcutaneous tissue	19
Excision of pilonidal sinus	17
Secondary closure of wound	5
Exploration of wound	9
	125

ABDOMINAL WALL:

Exploratory celiotomy	29
Incision and drainage of intra-abdominal abscess	8
Abdominal paracentesis	1
Umbilectomy	1
Secondary suture of wound of abdominal wall	1
Biopsy of peritoneum	6
Omentopexy	1
Removal of foreign body from peritoneal cavity	1
Hernia: inguinal	233
femoral	10
ventral	13
umbilical	2
ischiatic	1
diaphragmatic	1
	308

SKIN:

Incision and drainage of lesions of skin	5
Excision of lesion of skin	69
Plastic repair of skin without graft	17
Z plastic on skin	6
Biopsy of lesion of skin	7
Debridement of burn	11
Tattoo of lesion	24
	139

BREAST:

Local excision of lesion	86
Simple mastectomy	8
Partial mastectomy	5
Radical mastectomy	39
Biopsy of breast	5
Mastoplasty	9
	152

BONES:

Drainage of bone	1
Removal of foreign body	18
Osteotomy	4
Local excision of lesion	9
Partial ostectomy	16
Complete ostectomy	1
Insertion of traction device	2
Osteoplasty	3
Bone graft for fracture	4
Open reduction of fracture	23
Closed reduction of fracture	19
Fusion of bone	1
Spine fusion	6
Biopsy of sternal bone marrow	10
	117

BONES, SYNOVIA AND CARTILAGE:

Arthrotomy	8
Arthroplasty	2
Arthrodesis	5
Capsulotomy	1
Chondrectomy	2
Excision of interverterbral disk	27
Excision of semilunar cartilage of knee	18
Excision of lesion of joint	5
Manipulation of joint	1
Open reduction of dislocation	4
Closed reduction of dislocation	1
Synovectomy	1
Epiphyseodesis	5
	80

BURSA:

Incision and removal of calcareous deposit	6
Excision of bursa	8
	14

MUSCLES:

Incision and drainage of abscess	1
Myectomy	3
Resection of muscle	4
Myoplasty	1

CLASSIFICATION OF OPERATIONS

(Private)—*Cont'd*

Department of Surgery

MUSCLES—*Cont'd*

Scalenotomy	1
	10

TENDONS:

Exploration of tendon or tendon sheath	3
Excision of lesion	18
Tenosynovectomy	2
Tenoplasty	4
Transposition of tendon	1
Tenorrhaphy	6
	34

FASCIA:

Excision of fascia	1

EXTREMITIES:

Incision and drainage of infection of hand or finger	11
Amputation of finger	5
Amputation of leg	6
Amputation of foot	3
Amputation of toe	9
Incision and drainage of infection of foot or toe	6
	40

NOSE:

Excision of lesion	2
Septectomy	86
Turbinectomy	1
Rhinoplasty	62
Reduction of fracture of nose	2
	153

SINUSES:

Sinusotomy, simple	19
Sinusotomy, radical	30
Excision of lesion of accessory sinus	12
	61

LARYNX, TRACHEA, BRONCHUS, PHARYNX:

Total laryngectomy	1
Partial laryngectomy	4
Laryngoscopy	9
Tracheotomy	1
Bronchoscopy	3
Implantation of radon seeds in throat	2
	20

TONSILS AND ADENOIDS:

Tonsilectomy	375
Adenoidectomy	12
	387

THORAX:

Thoracotomy with exploration	11
Thoracotomy with open drainage	2
Thoracoplasty	8
	21

LUNGS:

Pneumonotomy with exploration	1
Total pneumonectomy	5
Total lobectomy	9
Partial lobectomy	7
Pleurectomy	1
	23

MEDIASTINUM:

Mediastinotomy	1
Mediastinotomy with removal of lesion	4
	5

ARTERIES:

Arteriography	16
Arterial anastomosis	1
Arteriorrhaphy	2
Aneurysmorrhaphy	1
Ligation of arteries	8
	28

VEINS:

Phlebectomy	106
Venography	1
Ligation of veins	2
Ligation of femoral veins	4
	113

SPLEEN, LYMPHATICS:

Splenectomy	6
Local excision of lymph nodes	17
Biopsy of lymph nodes	12
	35

ORAL CAVITY:

Incision and drainage of abscess of mouth	1
Excision of lesion of mouth or lip	8

ORAL CAVITY—*Cont'd*

Biopsy of mouth	1
Stomatoplasty	2
Cheiloplasty	9
Palatoplasty	5
Sialolithotomy	2
Excision of salivary gland	8
Repair of hare lip	2
Repair of cleft palate	3
Implantation of radon seeds in mouth	2
	43

ESOPHAGUS:

Esophagogastrectomy	1
Esophagogastrostomy	3
Closure of tracheo-esophageal fistula	1
	5

STOMACH:

Pyloromyotomy	2
Local excision of lesion of stomach	2
Partial gastrectomy	79
Total gastrectomy	5
Biopsy of stomach	2
Gastrostomy	1
Operation for gastroenteric fistula	1
Gastrorrhaphy	1
Gastroenterostomy	15
	108

SMALL INTESTINE:

Resection	6
Enterostomy	1
Enteroenterostomy	2
Closure of small intestinal fistula	1
Lysis of adhesions (small bowel obstruction)	9
Excision of Meckel's diverticulum	1
Reduction of intussusception	1
Reduction of volvulus	1
	22

APPENDIX:

Appendectomy, chronic or incidental	39
Appendectomy, acute	61
Appendectomy, with drainage	9
	109

COLON:

Colostomy	32
Closure of colostomy	14
Local excision of lesion	5
Right colectomy	18
Transverse colectomy	6
Descending or sigmoid colectomy	30
Reduction of volvulus	1
	106

RECTUM:

Abdomino-perineal resection of sigmoid and rectum	21
Proctosigmoidoscopy	2
Operation for closure of rectal fistula	1
	24

ANUS:

Fistulectomy	15
Incision and drainage of perianal abscess	15
Excision of lesion of anus and rectum	23
Hemorrhoidectomy	94
Anoplasty	1
Dilation of anal sphincters	7
	155

LIVER, BILIARY TRACT AND PANCREAS:

Hepatotomy with exploration	1
Hepatotomy with drainage	1
Biopsy of liver	5
Cholecystectomy, chronic	140
Cholecystectomy, acute	18
Cholecystectomy and choledochotomy	5
Cholecystostomy	2
Cholecystenterostomy	2
Biopsy of gallbladder	1
Choledochotomy	3
Choledochoplasty	2
Choledochoenterostomy	1
Choledochostomy	1
Biopsy of pancreas	1
Partial pancreatectomy	2
Pancreatotomy with drainage	1
	186

KIDNEY AND RENAL PELVIS:

Incision and drainage of kidney	2
Nephrectomy	26
Nephropexy	3

CLASSIFICATION OF OPERATIONS

(Private)—*Cont'd*

Department of Surgery

KIDNEY AND RENAL PELVIS—*Cont'd*

Incision and drainage of perirenal tissues	3
Nephrostomy	3
Pyeloplasty	3
Pyelotomy	13
Ureterotomy	12
Ureterectomy	3
Ureteroplasty	1
Ureterocystostomy	1
Uretersigmoidostomy	1
Ureterostomy	3
	74

BLADDER AND URETHRA:

Cystotomy and Cystostomy	27
Local excision of lesion of bladder	30
Partial cystectomy	3
Total cystectomy	5
Biopsy of bladder	4
Cystoscopy	14
Operation for bladder fistula	3
Operations on urethra	20
Pelvic evisceration	2
	108

MALE GENITAL SYSTEM:

PENIS:

Circumcision	14
Local excision of lesion of penis	1
Biopsy	1
Plastic on penis	9
	25

TESTIS:

Orchiectomy	9
Biopsy	31
Orchiopexy	8
	48

EPIDIDYMIS:

Epididymectomy	6
Epididymovasostomy	11
	17

SCROTUM:

Plastic operation on scrotum	1
Vasectomy	2
Excision of hydrocele	14
Excision of varicocele	3
	20

PROSTATE:

Suprapubic prostatectomy	47
Perineal prostatectomy	6
Radical perineal prostatectomy	7
Transurethral electroresection	98
Retropubic prostatectomy	2
	160
Total Male Genital System	270

FEMALE GENITAL SYSTEM:

Operations on vulva	3
Plastic repair of perineum	2
Colpoperineorrhaphy	11
Salpingectomy	2
Oophorectomy	13
Hysteromyomectomy	2
Supracervical hysterectomy	68
Total hysterectomy	16
Pan hysterectomy	3
Vaginal hysterectomy	4
Dilatation and curettage	20
Hysteropexy	2
Trachelectomy	2
Tracheloplasty	2
	150

ENDOCRINE:

Thyroidotomy	1
Thyroidectomy, non-toxic	67
Thyroidectomy, toxic	19
Thyroidectomy, total	5
Exploration of endocrine gland	1
Parathyroidectomy	1
	94

SKULL, BRAIN AND MENINGES:

Craniotomy, exploratory	13
Biopsy of skull	1
Cranioplasty	2
Open reduction of fracture of skull	1
Drainage of meninges	2
Excision of lesion of meninges	4
Encephalography	5
Ligation of meningeal vessels	1
Exploration of brain and biopsy	2
Lobotomy	7
Local excision of lesion of brain	15
Resection of lobe of brain	1
Operation on choroid plexus	1
Ventriculography	34
Ventriculostomy	1
	90

CLASSIFICATION OF OPERATIONS

(Private)—*Cont'd*

Department of Surgery

Spinal Cord:	
Laminectomy, exploratory	1
Decompression	5
Chordotomy	5
	11
Nerves:	
Neurotomy	2
Retrogasserian neurotomy	7
Acoustic neurotomy	2
Vagotomy	1
Phrenic nerve interruption	1
Excision of lesion of nerve	2
Neurectomy	2
Anastomosis of nerves	1
Neurolysis	2
Sympathectomy for hypertension	29
Sympathectomy (other than for hypertension)	3
	52
Eye:	
Cataract extraction	85
Muscle operation	50
Reattachment of retina	18
Removal of orbital tumor	6
Plastic on eyelid	5
Eye—*Cont'd*	
Enucleation	5
Cyclodialysis	5
Discission	5
Iridectomy	4
Dacrocystorhinostomy	4
Capsulotomy	4
Corneal transplant	4
Conjunctival plastic	3
Repair of lacerated globe	3
Iridencleisis	2
Plastic on cornea	2
Sclerectomy	2
Ptosis operation	1
Capsulectomy	1
Iridotomy	1
Exenteration of orbit	1
	211
Ear:	
Myringotomy	1
Ear plasty	6
Bilateral otoplasty	2
Mastoidectomy, simple	7
Mastoidectomy, endaural	3
Fenestration	1
	20
Total Private Operations	3,746

TABLE I.

OPERATIVE DEATHS, GENERAL SURGERY (PAVILION)

EMERGENCY: 12

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
528886	2 days	Omphalocele. Mongolism Prematurity	Excision of omphalocele and reduction of incarcerated small bowel	Atelectasis	Yes
532131	14 days	Third degree burn of face	Debridement of burn and application of split thickness skin graft	Air embolism	Medical Examiner
535491	60	Sigmoid diverticulitis with perforation. Generalized peritonitis	Exploratory laparotomy. Transverse colostomy	Uremia	No
523344	47	Bleeding esophageal varices.	Cholecystostomy. Biopsy of liver. Gastrotomy	Hemorrhage from esophageal varices	Yes
438165	56	Perforated duodenal ulcer	Plication of perforated duodenal ulcer	Gastrointestinal hemorrhage	Yes
502361	57	Acute cholecystitis with cholelithiasis	Cholecystectomy with drainage. Secondary closure of abdominal wound. Drainage of subhepatic space and wound abscess.	Pulmonary embolism	No
453903	61	Intestinal obstruction. Pulmonary emphysema.	Exploratory laparotomy	Pulmonary abscesses, bilateral	Yes
520212	18	Ulcerative colitis, postoperative. Regional enteritis	Incision and drainage of intra-abdominal abscesses. Release of torsion of terminal ileum. Lysis of adhesions	Cardiac arrthymia	Yes
541273	72	Acute pancreatitis	Exploratory laparotomy. Cholecystectomy	Postoperative shock	No
550676	8 days	Intestinal obstruction	Exploratory laparotomy. Lysis of adhesions. Small bowel resection with end-to-end anastomosis	Pneumonia	Yes
552008	6 weeks	Gastrointestinal bleeding	Exploratory laparotomy	Gastrointestinal hemorrhage	Yes
556548	78	Acute cholecystitis	Cholecystostomy	Cerebral hemorrhage	Yes

TABLE I.—*Continued*

OPERATIVE DEATHS, GENERAL SURGERY (PAVILION)

CANCER: 15

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
528370	70	Carcinoma of esophagus	Resection carcinoma of esophagus	Carcinomatosis	Yes
530481	78	Carcinoma of rectosigmoid	Resection of sigmoid colon with end-to-end anastomosis	Atelectasis	Yes
448266	37	Carcinoma of stomach	Exploratory laparotomy for inoperable tumor	Carcinomatosis	Yes
197421	51	Carcinoma of stomach with esophageal extension	Partial esophagectomy and esophagogastrostomy	Bronchopnumonia	No
260916	74	Carcinoma of breast	Right radical mastectomy	Bronchopneumonia	No
165491	79	Carcinoma of rectum with metastases	Transverse colostomy. Biopsy of liver	Cerebral vascular accident Carcinomatosis	Yes Yes
538289	76	Carcinoma of common bile duct	Hepatoduodenostomy and liver biopsy	Carcinomatosis	No
534663	61	Carcinoma of common bile duct	Exploratory laparotomy	Carcinomatosis	Yes
539811	63	Bronchogenic carcinoma	Left pneumonectomy	Carcinomatosis	Medical Examiner
533391	61	Bronchogenic carcinoma	Pneumonectomy	Carcinomatosis	Yes
541648	72	Carcinoma of cecum with metastases	Ileotransverse colostomy and omental biopsy	Carcinomatosis	Yes
547067	62	Recurrent cystadenocarcinoma of ovary. Obstructive hydronephrosis with non-functioning kidney	Exploratory laparotomy and ileo-transverse colostomy	Carcinomatosis	Yes
551089	52	Perforated gastric ulcer. Carcinoma of pancreas with metastases	Plication of perforated gastric ulcer. Biopsy of pancreas. Cholecystostomy	Carcinomatosis	Yes
543948	49	Carcinoma of lung	Biopsy of axillary lymph node. Pneumonectomy. Exploratory thoracotomy with drainage	Carcinomatosis Thrombosis inferior vena cava	Yes
552234	50	Carcinoma of lung with mediastinal metastases	Biopsy of cervical lymph node	Carcinomatosis	Yes

TABLE I.—*Continued*

OPERATIVE DEATHS, GENERAL SURGERY (PAVILION)

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
Biliary Tract: 4					
536285	71	Cholelithiasis and choledocholithiasis	Cholecystectomy, choledocholithotomy	Coronary occlusion	No
353465	55	Hemochromatosis. Chronic cholecystitis. Esophageal varices. Cirrhosis of liver	Cholecystectomy with drainage	Massive hemorrhage from esophageal varices	No
229906	46	Hemochromatosis	Cholecystectomy and liver biopsy	Hemochromatosis	Yes
277366	57	Recurrent obstruction of common bile duct due to stricture	Choledochojejunostomy	Biliary cirrhosis. Bile peritonitis	Yes
Gastrointestinal: 4					
546127	62	Lymphosarcoma of duodenum	Whipple procedure	Fat necrosis (Retroperitoneal)	Yes
532065	11	Benign polyp of sigmoid colon	Sigmoidotomy and excision of polyp. Thoracotomy, cardiac massage	Cardiac arrest	Yes
549763	5 days	Tracheo-esophageal fistula	Repair of esophageal atresia and tracheo-esophageal fistula	Bronchopneumonia	Yes
554387	7 mos.	Duodenal stenosis due to congenital diaphragm. Mongolism	Duodenotomy. Excision of congenital duodenal diaphragm	Gastric hemorrhage. Bronchopneumonia	Yes
Miscellaneous: 7					
522052	23	Endobronchial tuberculosis with stenosis	Pneumonectomy	Tuberculous pneumonia Tuberculous pericarditis	Yes
405087	52	Multiple myeloma. Anemia. Thrombocytopenia	Incision of left gluteal region	Multiple myeloma	Yes
545299	19	Dermoid cyst of lung. Kyphosis of cervical spine	Thoracotomy and excision dermoid cyst	Cerebral anoxia	Yes

TABLE I.—*Continued*

OPERATIVE DEATHS, GENERAL SURGERY (PAVILION)

MISCELLANEOUS: 7—*Cont'd*

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
22074	56	Gangrene of toe. Diabetes mellitus	Amputation of toe. Amputation mid-thigh	Coronary occlusion	No
47468	68	Intertrochanteric fracture, left femur. Arteriosclerotic, hypertensive cardiovascular disease.	Nailing of femur	Arteriosclerotic, hypertensive heart disease (Myocardial failure)	Yes
546411	55	Subacute bacterial endocarditis. Rheumatic heart disease. Actinomycosis	Skin and muscle biopsies. Sternal marrow biopsy and culture.	Subacute bacterial endocarditis. Rheumatic heart disease	Yes
535718	2	Congenital heart disease with atresia of pulmonary arteries. Tetralogy of Fallot	Exploratory thoracotomy. Attempted Blalock operation	Anoxemia	Yes

TOTAL: 42

TABLE II.

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PAVILION)

NEUROSURGERY: 23

530914	43	Laceration of brain due to trauma	Exploratory burr hole, left temporo-parietal region	Fracture of skull Intermeningeal hemorrhage	Medical Examiner
520861	39	Essential hypertension	Total left sympathectomy. Thoracolumbar right sympathectomy	Atelectasis	Yes
528287	44	Brain tumor	Ventriculogram. Craniotomy. Decompression	Cerebral edema	Yes

TABLE II.—*Continued*

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PAVILION)

NEUROSURGERY: 23—*Cont'd*

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
522901	60	Brain tumor	Ventriculogram. Craniotomy. Decompression	Cerebral edema	No
533553	5	Glioma of optic nerve	Removal of glioma of optic nerve	Hyperthermia of intracranial origin	Yes
533062	46	Brain tumor	Ventriculogram. Craniotomy.	Increased intracranial pressure	Yes
52555	64	Intractable pain of face from carcinoma of right antrum	Fifth nerve section — cerebellar approach	Increased intracranial pressure	Yes
532653	41	Frontal sinusitis. Subdural abscess	Drainage of subdural space and frontal sinusitis	Subdural abscess	Yes
537093	54	Brain tumor	Arteriogram and ventriculogram. Craniotomy and biopsy of infiltrating tumor	Increased intracranial pressure	No
535873	36	Malignant hypertension	Thoracolumbar sympathectomy. Thoracic sympathectomy	Coronary occlusion	No
542124	52	Brain tumor	Exploration of posterior fossa. Biopsy	Medullary compression	Yes
544262	21	Brain tumor	Craniotomy. Removal of tumor. Elevation of bone flap	Hemorrhage in hypothalamus	Yes
551386	28	Pituitary tumor	Partial excision of pituitary tumor	Cerebral edema	Yes
271697	63	Brain tumor	Ventriculogram and craniotomy	Brain tumor	No
549111	60	Carcinomatosis with intracranial metastases secondary to carcinoma of breast	Ventriculogram. Subtemporal decompression	Right parietal lobe glioma. Bronchopneumonia	Yes
473701	31	Brain tumor	Ventriculogram and craniotomy	Brain tumor	Yes
546484	29	Temporal lobe abscess. Chronic otitis media	Mastoidectomy	Rupture of temporal lobe abscess into ventricle	Yes
545287	21	Malignant hypertension	Thoracolumbar sympathectomy	Uremia	No
554362	43	Possible brain tumor	Ventriculogram and craniotomy	Brain tumor	Yes
478114	47	Multiple metastases, secondary to carcinoma of breast	Venogram, ventriculogram and temporal decompression	Intracranial metastatic carcinoma	Yes

TABLE II.—*Continued*

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PAVILION)

NEUROSURGERY: 23—*Cont'd*

185535	77	Intracranial hemorrhage	Temporal craniotomy	Intracranial hemorrhage	Yes
547851	41	Neurilemmoma of acoustic nerve	Excision acoustic neurilemmoma	Postoperative hemorrhage	No
554393	44	Pituitary tumor. Postoperative intracranial abscess	Incision and drainage of intracranial abscess	Brain abscess	Yes

UROLOGY: 6

245173	78	Benign prostatic hypertrophy with uremia	Cystostomy and vas ligation	Myocardial infarction	Yes
546015	77	Benign prostatic hypertrophy and chronic prostatitis	Transurethral resection and vas ligation	Myocardial infarction	Yes
556597	65	Carcinoma of bladder	Bilateral uretero-sigmoidostomy, dissection of pelvic lymph nodes and total cystectomy	Carcinomatosis	Yes
553636	67	Carcinoma of bladder, recurrent	Biopsy of pelvic mass	Carcinomatosis	No
12023	70	Carcinoma of bladder	Right ureteral transplantation to sigmoid	Uremia	Yes
554363	59	Carcinoma of bladder	Bilateral uretero-sigmoidostomy. Total cystectomy, prostatectomy, and pelvic lymph node dissection.	Generalized peritonitis	Yes

ORTHOPEDICS: 1

121538	48	Tuberculosis of knee	Arthrodesis of knee	Addison's disease, due to bilateral tuberculosis of adrenal gland	Yes

TABLE II.—*Continued*

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PAVILION)

Number	Age	Primary Diagnosis	Operation	Cause of Death	Autopsy
Otolaryngology: 2					
534990	15	Fibrosarcoma of lung	Emergency bronchoscopy and tracheotomy	Tracheobronchial obstruction	No
551765	73	Carcinoma of larynx and trachea	Bronchoscopy and tracheotomy	Carcinomatosis	Yes

TABLE III.

NONOPERATIVE DEATHS (PAVILION)

Number	Age	Primary Diagnosis	Cause of Death	Autopsy
General Surgery: 6				
531140	67	Automobile accident	Multiple fractures. Bronchopneumonia. Internal injuries	Medical Examiner
534628	53	Mediastinal tumor	Uncontrollable hemorrhage from respiratory tract	Yes
536351	59	Bronchogenic carcinoma with metastases to liver	Carcinomatosis	Yes
409149	50	Carcinoma of duodenum	Carcinomatosis	Yes
356368	88	Intertrochanteric fracture of femur	Pulmonary fat embolism	Yes
532864	39	Metastatic carcinoma from stomach	Carcinomatosis	Yes
Neurosurgery: 2				
210313	55	Brain tumor	Cerebral hemorrhage	Yes
512974	55	Brain tumor, recurrent	Brain tumor, recurrent	Yes
Urology: 6				
510619	66	Obstructive uremia	Obstructive uremia	No
528595	43	Carcinoma of cervix	Obstructive uremia	No
126386	63	Arterial infarct, right kidney	Cardial infarction	Yes

NONOPERATIVE DEATHS (PAVILION)

TABLE III.—*Continued*

Number	*Age*	*Primary Diagnosis*	*Cause of Death*	*Autopsy*
533060	15	Chronic pyelonephritis. Congenital bladder neck obstruction	Uremia	Yes
403327	79	Carcinoma of bladder	Carcinomatosis	No
519151	56	Carcinoma of bladder with metastases	Carcinomatosis	Yes
ORTHOPEDICS: 1				
545272	52	Osteolytic osteogenic sarcoma of scapula	Generalized sarcomatous metastases	Yes

TOTAL DEATHS (PAVILION): Operative 74; Nonoperative 15; 89

TABLE IV.

OPERATIVE DEATHS, GENERAL SURGERY (PRIVATE)

EMERGENCY: 3

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
345606	73	Intestinal obstruction secondary to carcinoma. Evisceration of abdominal wound.	Sigmoidostomy, secondary closure of abdomen	Pneumonia	Yes
528741	48	Cacinoma of lung with abscess formation. Bilateral nephritis	First stage open pleural drainage. Incision and drainage of left pulmonary abscess	Uremia	Yes
554360	1 mo.	Tracheo-esophageal fistula	Tracheo-esophageal fistulectomy	Prematurity	Yes

TABLE IV.—*Continued*

OPERATIVE DEATHS, GENERAL SURGERY (PRIVATE)

CANCER: 11

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
530027	51	Adenocarcinoma of pancreas with metastases.	Exploratory laparotomy with biopsy of liver and omentum	Carcinomatosis	No
529830	47	Carcinoma of thyroid	Biopsy of thyroid gland and tracheotomy	Carcinomatosis	Yes
436790	66	Carcinoma of lung	Pneumonectomy	Carcinomatosis	No
538708	73	Adenocarcinoma of cecum with metastases	Ileotransverse colostomy	Cerebrovascular accident	Yes
542022	68	Carcinoma of cecum	Exploratory laporotomy and omental biopsy	Carcinomatosis	No
310281	61	Carcinoma of ovary with metastases and intestinal obstruction.	Sigmoidostomy	Carcinomatosis	Yes
545581	71	Carcinoma of pancreas with metastases	Choledochoduedonostomy	Carcinomatosis	No
543692	42	Lymphosarcoma of small bowel with metastases to right humerus and scapula	Biopsy of right humeral head	Intestinal obstruction with terminal bronchopneumonia	No
551810	68	Carcinoma of head of pancreas	Exploratory laparotomy with biopsy of liver nodule	Carcinomatosis	No
555697	64	Carcinoma of bladder with metastases to liver. Duodenal and common duct obstruction.	Exploratory laparotomy. Biopsy of gallbladder	Carcinomatosis	No
517130	60	Carcinoma of rectum with metastases	Revision of colostomy	Carcinomatosis	Yes

GASTROINTESTINAL: 1

236006	72	Duodenal ulcer	Plication of duodenal ulcer	Generalized peritonitis	Yes

TABLE IV.—*Continued*

OPERATIVE DEATHS, GENERAL SURGERY (PRIVATE)

MISCELLANEOUS: 6

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
528430	89	Subdural hematoma	Evacuation of subdural hematoma and left subtemporal decompression	Bronchpneumonia	Medical Examiner
250177	32	Splenomegaly of undetermined etiology	Splenectomy	Intraperitoneal hemorrhage	Yes
544034	43	Fusiform aneurysm of abdominal aorta. Gangrene of both lower extremities	Ligation of abdominal aorta. Bilateral high thigh amputation. Suprapubic cystotomy	Bronchopneumonia	Yes
550346	79	Postoperative stricture of rectum	Dilatation of stricture of rectum	Postoperative shock	Yes
362834	78	Generalized arteriosclerosis. Diabetes mellitus. Gangrene of 2nd and 3rd toes	Debridement of gangrene of 2nd and 3rd toes	E. Coli septicemia	No
543549	60	Arteriosclerotic and diabetic gangrene of leg	Lumbar sympathectomy and resection of femoral artery.	Coronary occlusion	Yes

TOTAL: 21

TABLE V.

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PRIVATE)

NEUROSURGERY: 11

364962	60	Right hemiparesis due to cerebral hemorrhage	Evacuation of cerebral hematoma	Cerebral damage due to cerebral hemorrhage	Yes
530836	41	Brain tumor	Total extirpation of brain tumor	Bronchopneumonia	Yes
533496	60	Brain tumor	Ventriculogram. Ventriculostomy	Increased intracranial pressure	No
524984	52	Brain tumor	Exploratory craniotomy and biopsy	Increased intracranial pressure	Yes

TABLE V.—*Continued*

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PRIVATE)

NEUROSURGERY: 11—*Cont'd*

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
535991	52	Pituitary tumor	Subtotal excision of pituitary adenoma	Bronchopneumonia	Yes
545179	38	Intracranial aneurysm with hemorrhage	Arteriogram. Ligation of carotid	Intracranial hemorrhage	No
544643	63	Pelvic carcinomatosis. Intractable pain	Bilateral chordotomy	Coronary occlusion	No
550106	46	Cerebellar hemorrhage	Ventriculogram. Craniotomy	Hemorrhage into brain stem	Yes
557033	10	Brain tumor	Ventriculogram. Posterior craniotomy	Brain stem tumor	Yes
553499	58	Multiple metastases secondary to hypernephroma	Bilateral thoracic chordotomy	Carcinomatosis	No
547911	45	Carcinoma of submaxillary with metastases and intractable pain	Lobotomy and exploration of wound	Increased intracranial pressure	No
UROLOGY: 4					
431655	60	Adenomatous hyperplasis of prostate	Suprapubic prostatectomy	Coronary occlusion	No
530820	76	Papilloma of bladder	Observation cystoscopy	Pulmonary embolism	No
10147	69	Benign prostatic hypertrophy	Suprapubic cystostomy, perineal prostatectomy	Pulmonary embolism	No
550327	80	Carcinoma of bladder	Segmental resection of bladder	Uremia	No
PLASTIC: 1					
531816	6 weeks	Cleft palate and harelip	Repair of harelip	Atelectasis with bronchial occlusion	Yes
ORTHOPEDICS: 1					
540091	42	Unstable lumbosacral joint. Severe	Fusion of lumbosacral joint	Coronary occlusion	Medical Examiner

TABLE V.—*Continued*

OPERATIVE DEATHS, SURGICAL SPECIALTIES (PRIVATE)

OTOLARYNGOLOGY: 1

Number	*Age*	*Primary Diagnosis*	*Operation*	*Cause of Death*	*Autopsy*
272050	66	Carcinoma of larynx	Laryngectomy	Pulmonary embolism	Yes

TABLE VI.

NONOPERATIVE DEATHS, (PRIVATE)

GENERAL SURGERY: 11

Number	*Age*	*Primary Diagnosis*	*Cause of Death*	*Autopsy*
267471	50	Adenocarcinoma of stomach	Carcinomatosis	No
541795	82	Carcinoma of pancreas	Carcinomatosis	No
541073	52	Carcinoma of lung with metastases to scapula and femur	Carcinomatosis	Yes
531823	13	Metastatic Ewing's tumor	Carcinomatosis	Yes
547991	56	Carcinoma of pancreas with metastases	Carcinomatosis	Yes
529877	81	Carcinoma of breast with metastases	Carcinomatosis	Yes
410914	42	Carcinoma of both breasts, postoperative	Carcinomatosis with bilateral pleural effusion	No
550306	64	Generalized peritonitis due to perforated diverticulum of sigmoid	Generalized peritonitis	Yes
529860	62	Metastatic carcinoma from stomach	Carcinomatosis	Yes
460919	66	Metastatic carcinoma from sigmoid	Carcinomatosis	No
552333	68	Duodenal ulcer	Gastrointestinal hemorrhage	Yes

PLASTIC: 1

520124	18 mos.	Cleft palate. Hypoglycemia	Hypoglycemia	Yes

TABLE VI.—*Continued*

NONOPERATIVE DEATHS (PRIVATE)

UROLOGY: 5

Number	*Age*	*Primary Diagnosis*	*Cause of Death*	*Autopsy*
527163	61	Carcinoma of prostate	Pulmonary embolus	Yes
403943	72	Generalized arteriosclerosis	Coronary occlusion	No
541059	55	Carcinoma of kidney	Carcinomatosis	No
536498	41	Cirrhosis of liver	Uremia	Yes
533724	76	Carcinoma of bladder	Carcinomatosis	No

TOTAL DEATHS (PRIVATE)	Operative	39
	Nonoperative	17
		56

TOTAL NUMBER OF DEATHS (PRIVATE SERVICE):	Nonoperative	17
	Operative	39
		56